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# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

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December 20, 2011

TO: Internal File

THRU: Steve Christensen, Permit Supervisor *SKC*

FROM: James Owen, Reclamation Engineer *JO*

RE: Change to Allow Extraction of Longwall Panel 22, West Ridge Resources, Inc.,  
West Ridge Mine, C0070041, Task #3989

### SUMMARY:

On August 09, 2011 the Utah Division of Oil Gas & Mining (Division) received an application for an amendment to the West Ridge Resources (WRR) Mining and Reclamation Plan (MRP). The amendment is for the purpose of allowing extraction of "Longwall Panel 22". The change would add 273.43 acres to the existing permit. The applicant stated that Panel 22 will be the last longwall panel to be developed in the down-dip section of the northeastern-most portion of the mine workings. After reviewing the application, the Division denied approval, citing deficiencies.

On December 15, 2011, The Division received a response from WRR to address the deficiencies identified in the initial review. This memo addresses compliance with the engineering (R645-301-500) section of the Utah Coal Mining Rules.

No additional deficiencies were identified during this review. The amendment is recommended for approval at this time.

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**TECHNICAL ANALYSIS:****OPERATION PLAN****SUBSIDENCE CONTROL PLAN**

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

**Analysis:**

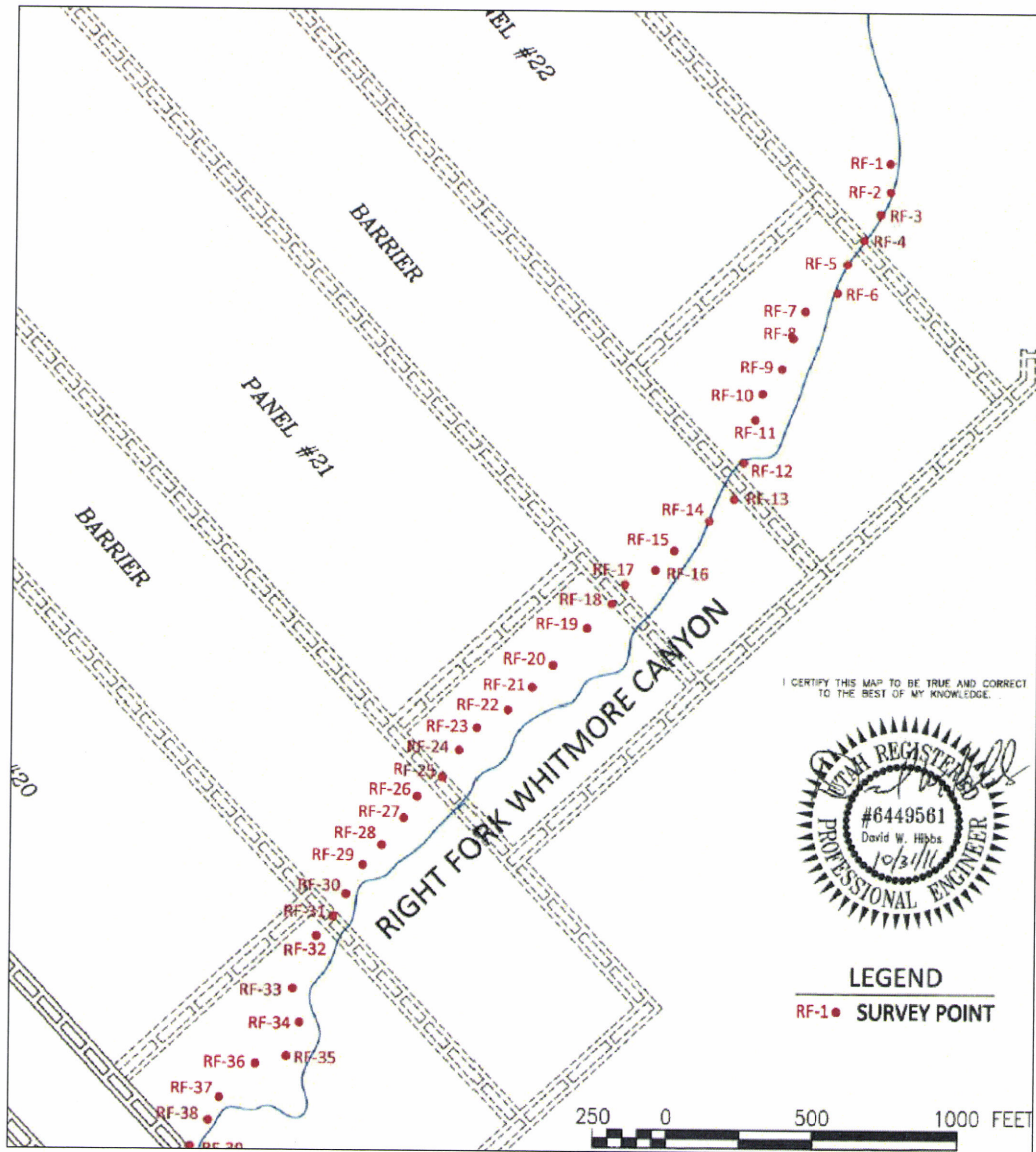
During the initial review, the following deficiencies were identified:

- **R645-301.525.440.** *The Division requests that the applicant submit an additional map or an amended version of Map 5-7 to include the locations of the photogrammetric subsidence monitoring points used for annual subsidence surveys. Point labels are not required. An updated map including monitoring station locations (and not just control point locations) will allow the Division to conduct a more thorough analysis of subsidence monitoring adequacy for areas that may be subsided as a result of mining Panel 22.*
- **R645-301.525.440; 525.490.** *The Division requests that the applicant submit an additional map, at an appropriate scale, to identify the locations of the "survey elevation monitoring stations at 100' intervals along the bottom of the Right Fork drainage within the permit area". In addition, the applicant must submit a complete description of the monitoring system, i.e. instruments used for monitoring, frequency and duration of monitoring, and frequency, method, and format which survey information will be provided to the Division.*

To address these deficiencies, the applicant included changes on page 5-30 of the text as well as Map 5-7 (Subsidence Map). The applicant also included a new appendix (5-18) to provide detailed information in terms of subsidence monitoring point locations above the Right Fork of Whitmore Canyon.

Appendix 5-18 includes the required information in terms of the details of the subsidence monitoring in the Right Fork of Whitmore Canyon. The survey includes 44 monuments along and near the creek. The monuments consist of 5/8" diameter rebar. Survey grade GPS equipment will be used for monitoring. The anticipated accuracy is +/- 0.05 feet. It is also assumed that seasonal movements could increase the margin of error to .01 feet. A detailed map was included in the appendix showing the locations of all 44 monitoring stations. Raw subsidence data with baseline in terms of easting, northing and elevation was also included. The maps were correctly certified and appropriately scaled.

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**Findings:**

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

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## MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

### **Analysis:**

All included maps were appropriately certified and scaled.

### **Findings:**

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

### **RECOMMENDATIONS:**

The amendment is recommended for approval at this time.